CLAIMS

We claim:

1.    A method for error detection and correction (EDC) in transferring data in a packet of bytes from a memory module to a requesting device comprising the steps of:

defining for each byte of packet have an EDC code portion and a data portion;

reading out said data from said memory module;

forwarding said data portion to said requesting device;

storing said EDC portion and sending said EDC portion to an EDC functional block when a complete EDC code is obtained;

copying said data and sending said data to said EDC functional block; and

performing error checking and correction in said EDC functional block when said EDC functional block receives a complete EDC code.


2.    A method as in claim 1, wherein when an error is detected in said EDC functional block, said block causes:

setting a flag and correcting said data; writing the correct data back to said memory module; and

generating an interrupt to said requesting device for a later retransmission.


3.    A method as in claim 1, wherein each byte of a packet has 8 bits of data and 1 bit of a 8 bit EDC code and said EDC code is distributed among 8 bytes of each packet.


4.    A method as in claim 1, wherein said forwarding of said data portion will not begin until an entire packet is received and said entire packet is checked and corrected for error.